

MALAYSIAN AVIATION COMMISSION

Benefits of Integrated Terminals



**Malaysian
Aviation Commission**
Suruhanjaya Penerbangan Malaysia

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Table of Abbreviations

Abbreviations	Full Name	Abbreviations	Full Name
ACI	Airport Council International	LCC	Low Cost Carrier
AMS	Amsterdam Airport Schiphol	MAHB	Malaysia Airports Holdings Berhad
BKI	Kota Kinabalu International Airport	MAVCOM	Malaysian Aviation Commission
BKK	Suvarnabhumi Airport	MCT	Minimum Connecting Time
CIQ	Customs, Immigration, and Quarantine	OAG	Official Aviation Guide
CPH	Copenhagen Airport	PSC	Passenger Service Charges
FSC	Full Service Carrier	SIN	Singapore Changi Airport
HCI	Hub Connectivity Index		
KUL	Kuala Lumpur International Airport		
KUL-T1	Kuala Lumpur International Airport Terminal 1		
KUL-T2	Kuala Lumpur International Airport Terminal 2		

Integrated terminals (e.g. airside connectivity between KUL-T1 and KUL-T2) confers several benefits



- Reduce congestion at KUL-T1 without building additional terminal(s)
- Improve airport operational efficiency
- Facilitates interlining and self-connections
- Potentially improve traffic growth

Airside connectivity can reduce congestion at KUL-T1 without building additional terminal(s)



Airports	Terminal design capacity (mn pax)	2016		2017		2018	
		Total pax (mn pax)	Terminal utilisation	Total pax (mn pax)	Terminal utilisation	Total pax (mn pax)	Terminal utilisation
KUL-T1	25	25.52	102%	28.29	113%	28.03	112%
KUL-T2	45	27.12	60%	30.28	67%	31.92	71%
Total	70	52.64	75%	58.57	84%	59.95	86%

Source: MAHB

- KUL-T1 utilisation is more than 100% while KUL-T2 is only reaching 70%
- Discussions with stakeholders reveal that **airlines are reluctant to move to KUL-T2 as there is no connectivity** between KUL-T2 and KUL-T1
- Having airside connectivity between KUL-T1 and KUL-T2 can **reduce congestion in KUL-T1**

Integrated terminals give airports better operational efficiency



2018	MCT	Terminal capacity (mn pax)	No. of terminals	No. of incoming flights	Total average connections per incoming flight	Total Hub Connectivity Index (HCI) score
SIN	45	82	4	3,684	65	241,213
BKK	55	45	1	3,594	78	281,645
KUL	60	70	2	3,969	24	96,725

Source: MAVCOM Analysis, OAG Analyser

- **Integrated terminals** in SIN and BKK enable **shorter connecting times**
- **KUL's substantially lower hub connectivity** (measured by HCI) is partly due to **its higher minimum connecting time**
- In cases where terminals are integrated within one building (e.g. finger pier configurations), there are also **cost-savings** as facilities like CIQ and baggage-handling systems do not need to be duplicated

Integrated terminals provide opportunities for interlining and self-connection, improving connectivity

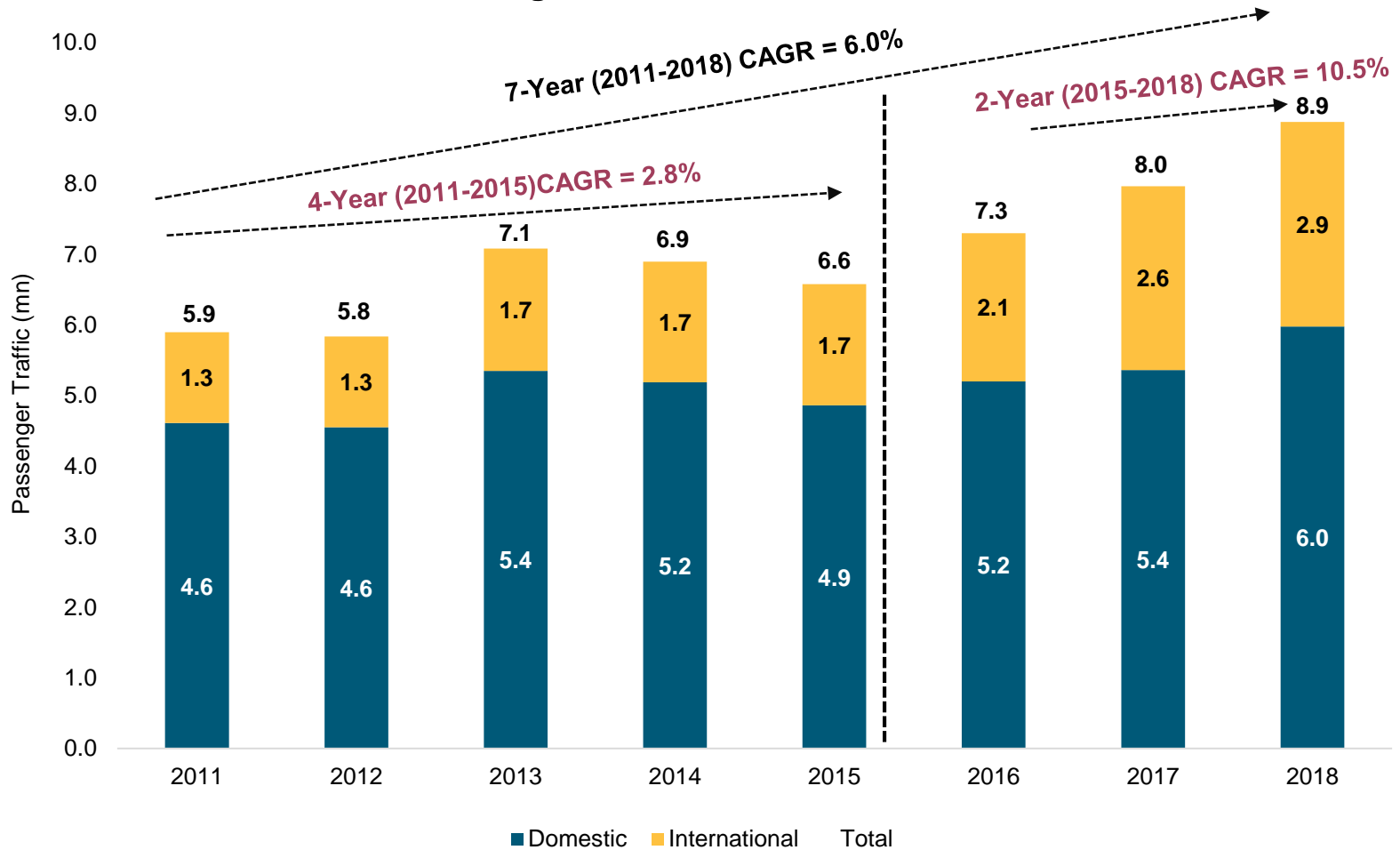


- Integrated and/or connected terminals allow **seamless interlining and transfer connection facilities** between FSCs, and also between FSCs and LCCs
- Integrated terminals allows **self-connection** (e.g. AMS and CPH):
 - **Separate piers for fast-turnaround flights that are integrated** within a single terminal building
 - Passengers for all airlines are charged the **same PSC**
 - **Single CIQ** and baggage-handling facilities
 - **Allows for airside transfer** of passengers even between non-interlined flights

Passenger traffic improved markedly for BKI after AirAsia moved to Terminal 1 in December 2015



Passenger Traffic for BKI, 2011-2018

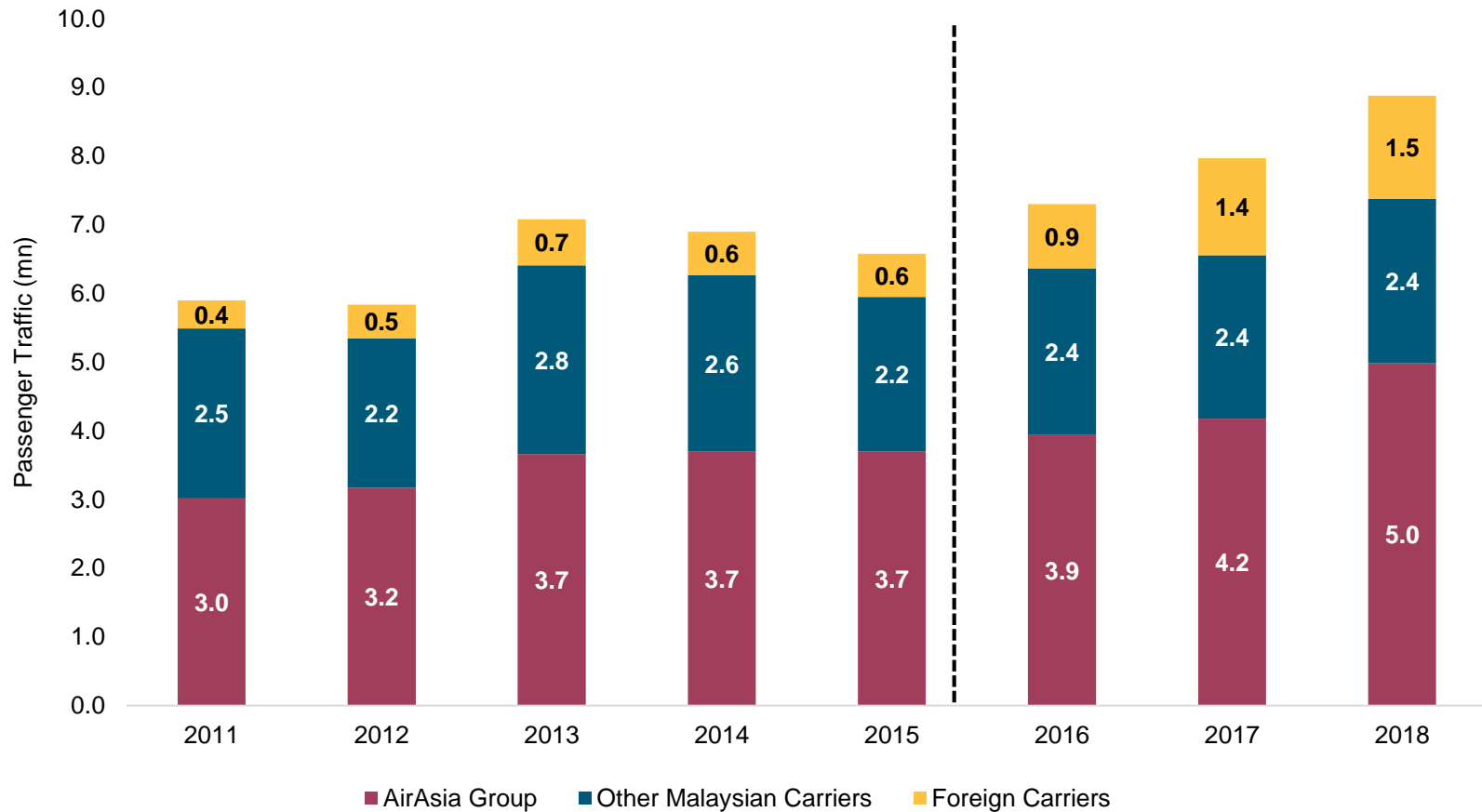


Source: AirportIS

All airlines have benefited from being in an integrated terminal

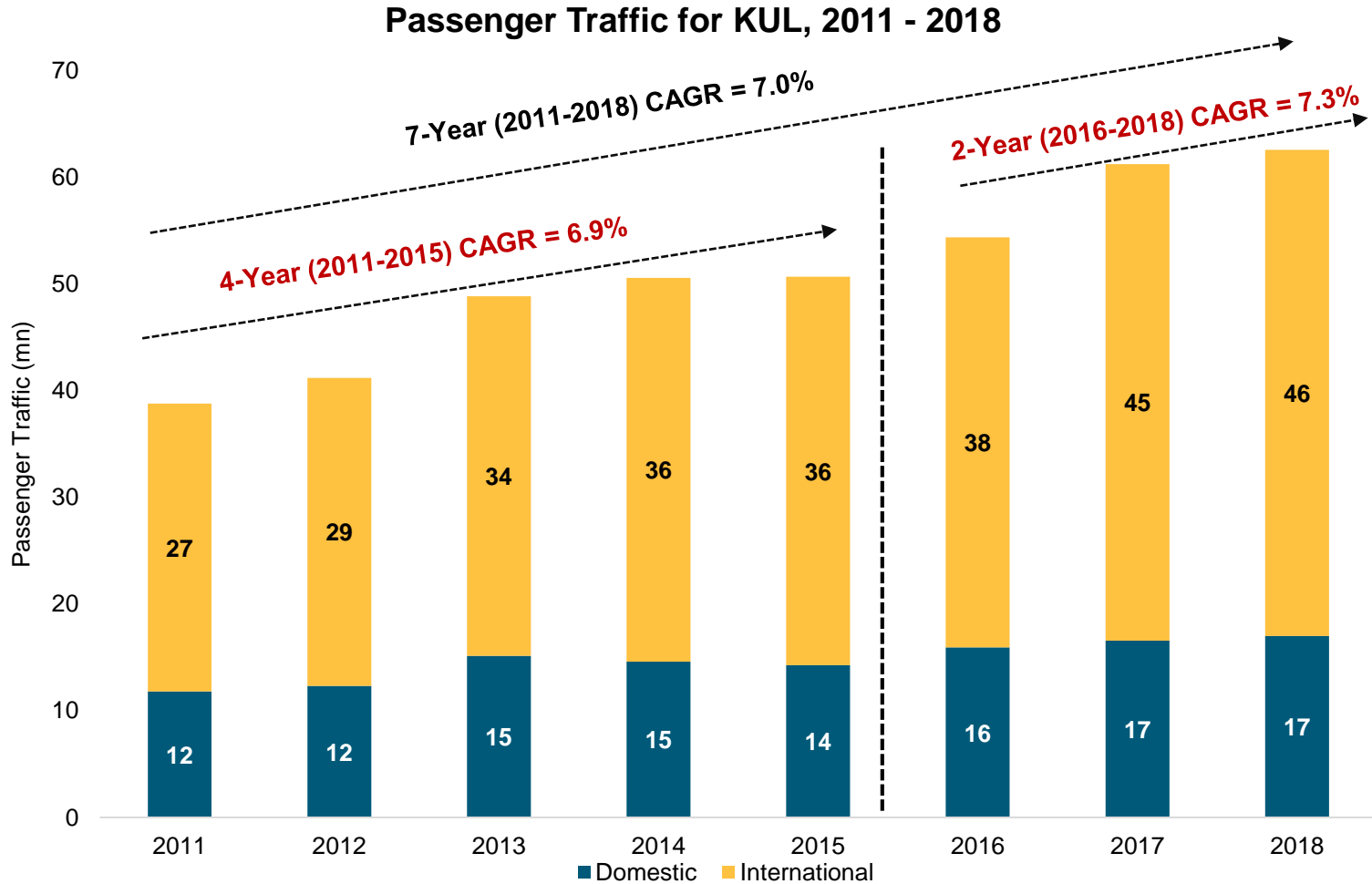


Passenger Traffic for BKI, 2011-2018



Source: MAVCOM Analysis, AirportIS

Arguably, KUL's traffic could have grown faster if its terminals were integrated, similar to BKI's case



Source: MAVCOM Analysis, AirportIS

THANK YOU



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